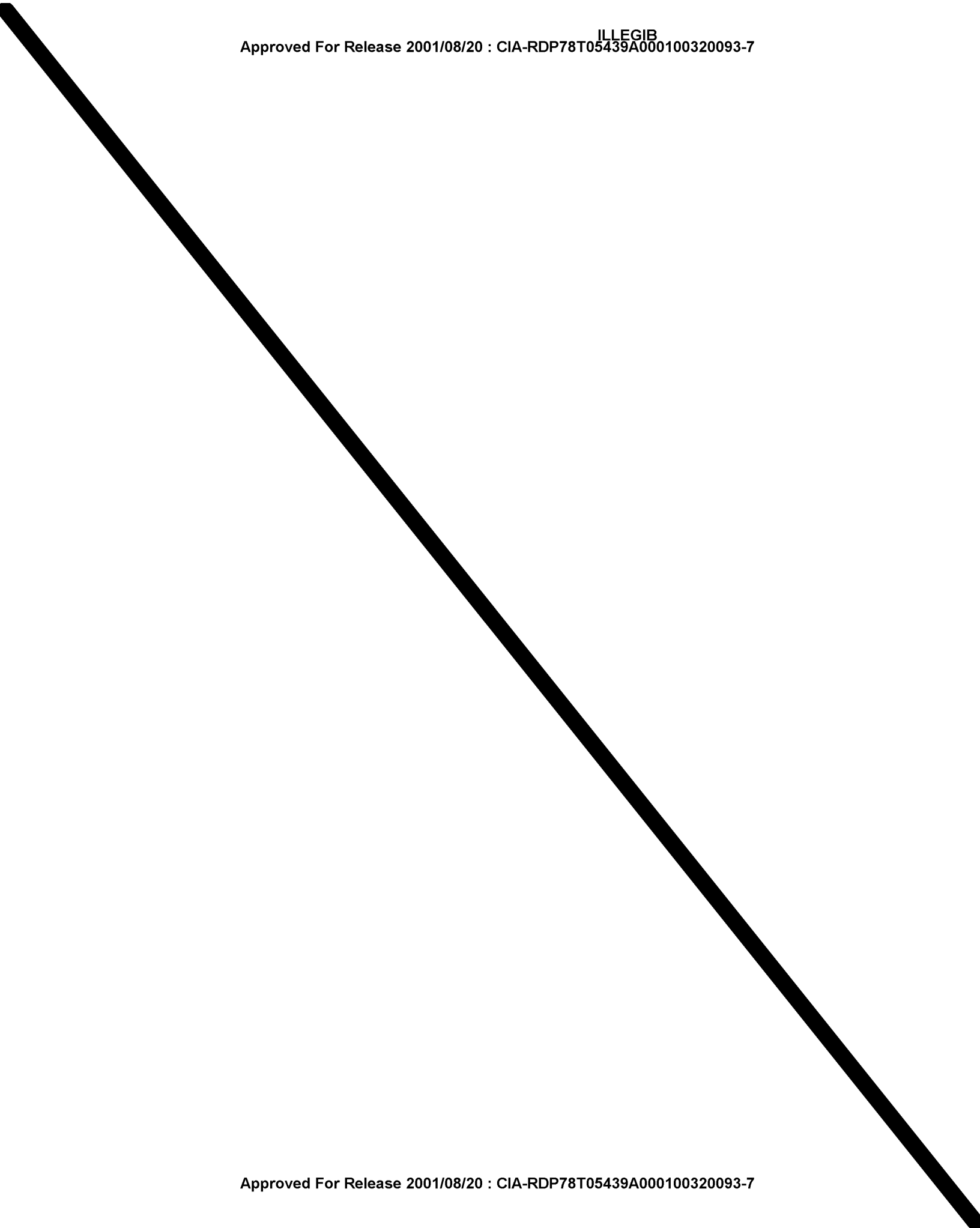

~~TOP SECRET GHESS~~

TWO HIGH FREQUENCY RADIO RECEIVING STATIONS NEAR SOFIA, BULGARIA

PIC/JR-11/60

MAY 1960

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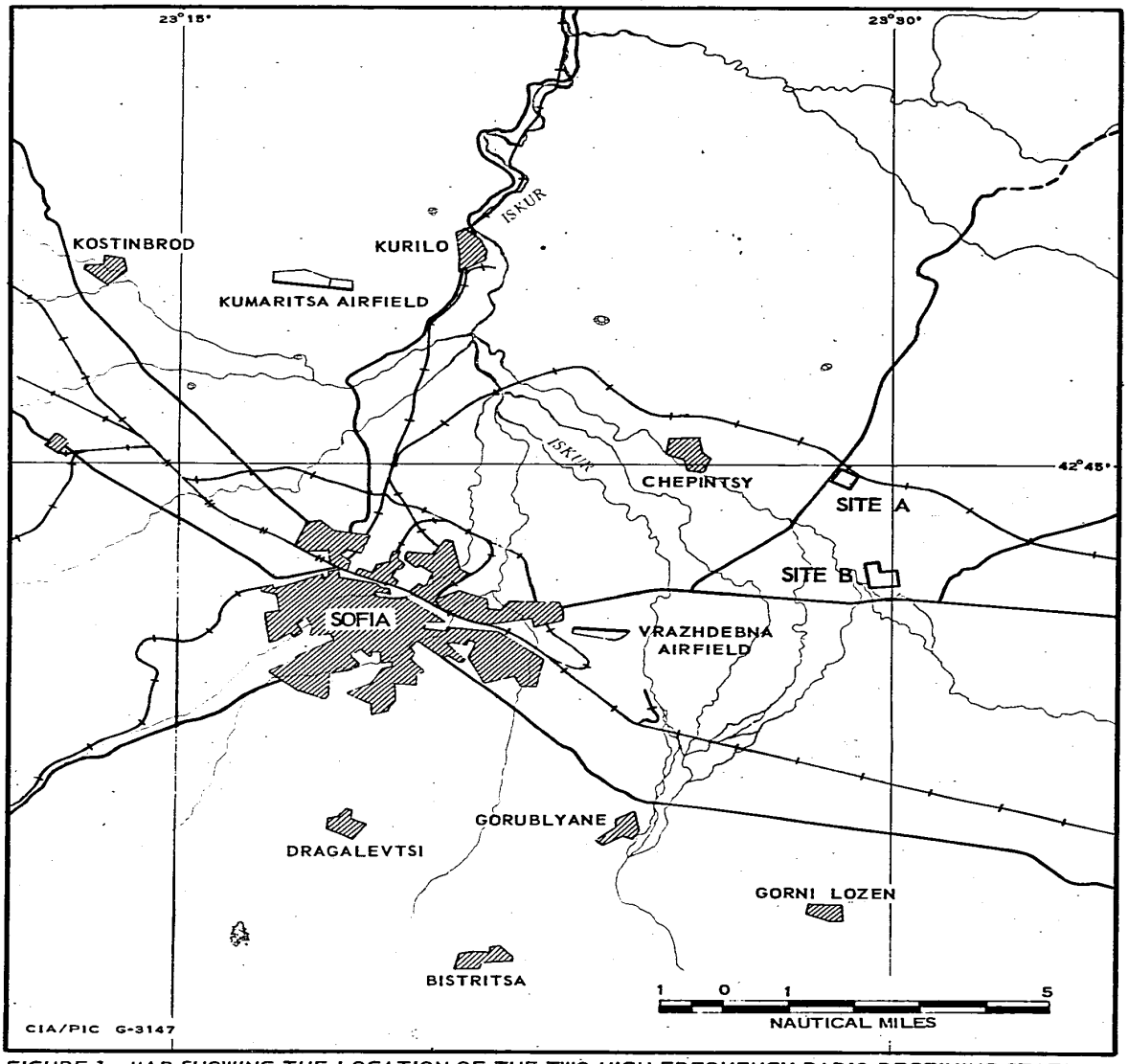

FIGURE 1. MAP SHOWING THE LOCATION OF THE TWO HIGH FREQUENCY RADIO RECEIVING STATIONS NEAR SOFIA, BULGARIA.

PIC/JR-11/60

TWO HIGH FREQUENCY RADIO RECEIVING STATIONS NEAR SOFIA, BULGARIA

INTRODUCTION

This joint photographic intelligence report has been prepared by the Army, Navy, and Central Intelligence Agency in response to CIA requirement SI/R-44/58 and Army and Navy general requirements. It concerns two communications sites located approximately 7 nautical miles (nm) east of Sofia, Bulgaria (see Figure 1).

25X1D

Photography of [redacted] indicates that these sites are high frequency radio receiving stations. The presence of fishbone antennas and the lack of cooling facilities and/or dissipation lines suggests that the sites are not used for transmitting or jamming. The sites do not appear on World War II German aerial photography.

DESCRIPTION OF SITE A

Site A is located 7 nm east-northeast of Sofia, at 42°44'30"N/23°29'00"E (see Figures 1 and 2). The site is fenced, and encompasses approximately 250 acres. It contains two control buildings and 17 support buildings, as shown in Table 1.

Within Site A there are five double rhombic antennas and three fishbone antennas. Pertinent data concerning these antennas is contained in Tables 2 and 3. In addition to the rhombic and fishbone antennas, there are 21 stick masts in Site A. The majority of the stick masts are located in the support area, and range in height from 60 to 90 feet.

DESCRIPTION OF SITE B

Site B is located approximately 1.5 nm south-southeast of Site A, at 42°42'45"N/23°29'50"E (see Figures 1 and 3). It occupies a fenced area

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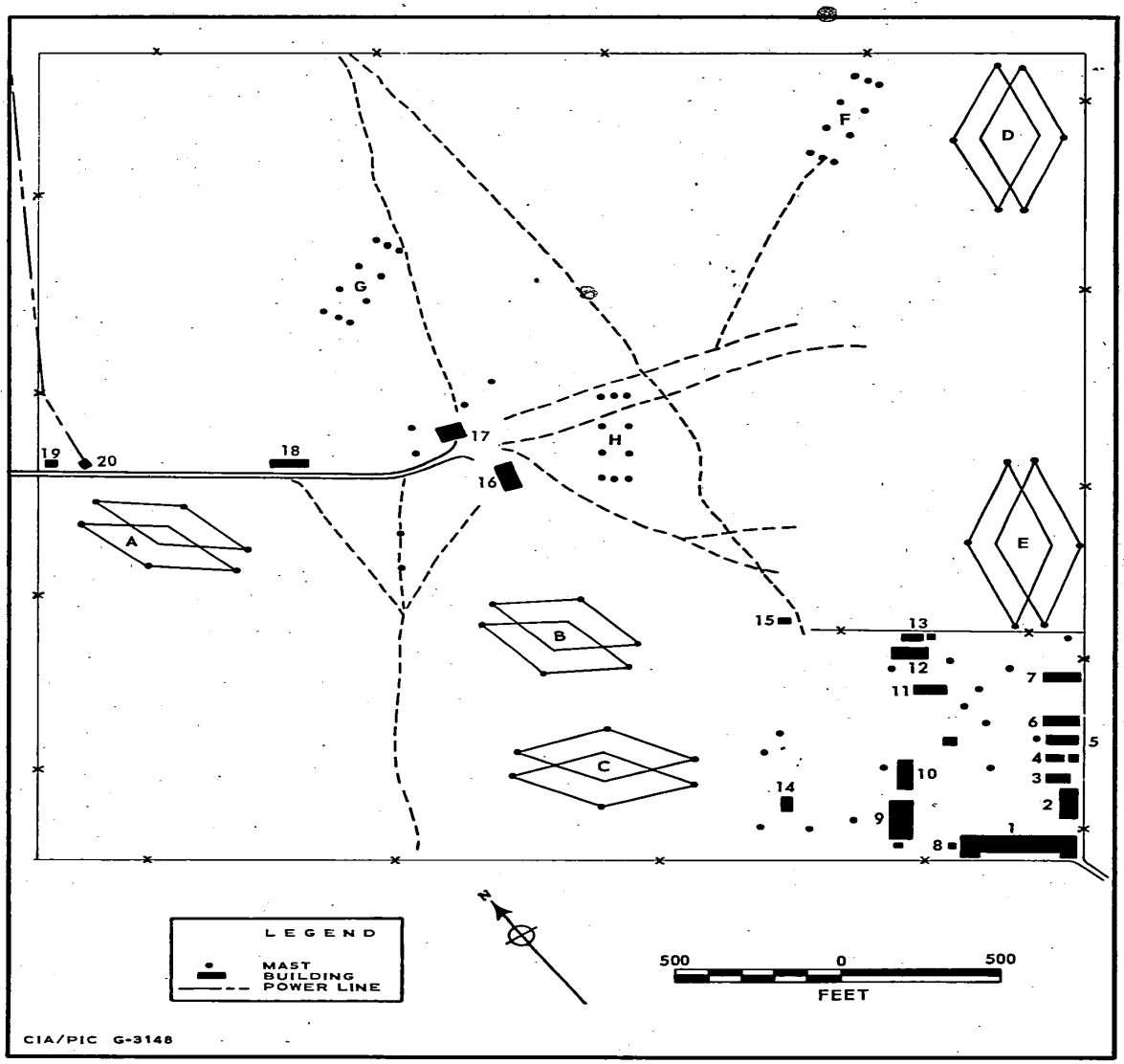

FIGURE 2. SITE A. This site contains 5 double rhombic antennas, 3 fishbone antennas, and 21 stick masts.

Table 1. Structures At Site A

Item	Identification	No of Stories	Roof Type	Dimensions (feet)
1	Administration building, U-shaped	3	Hip	360 x 70 (base) 55 x 20 (legs)
2	Support building	1	Hip	140 x 50
3	Support building	1	Hip	80 x 35
4	Support building	1	Hip	65 x 35
5	Support building	1	Hip	85 x 30
6	Barracks	2	Hip	115 x 50
7	Support building	1	Hip	100 x 20
8	Support building	1	Hip	45 x 30
9	Support building	1	Hip	155 x 85
10	Support building	1	Hip	130 x 30
11	Support building	1	Hip	125 x 45
12	Support building	1	Hip	125 x 45
13	Support building	1	Hip	70 x 35
14	Support building	1	Hip	80 x 30
15	Support building	1	Hip	35 x 30
16	Control building	2	Hip	100 x 55
17	Control building	2	Hip	85 x 55
18	Support building	1	Hip	105 x 35
19	Guardhouse	1	Hip	35 x 15
20	Transformer tower	--	----	30 (high)

Table 2. Rhombic Antennas at Site A

	Antenna	Length of Major Axis (feet)	Length of Minor Axis (feet)	End Pole Separation (feet)	End Pole Height (feet)	Azimuth of Major Axis (degrees)	Computed Tilt Angle (degrees)	Design Frequency (megacycles)
25X1D	A	540	[redacted]					
	B	540						
	C	540						
	D	620						
	E	620						

Table 3. Fishbone Antennas at Site A

	Antenna	Dimensions (feet) Length	Width	Height	Azimuth Orientation (degrees)
25X1D	F	[redacted]			
	G				
	H				

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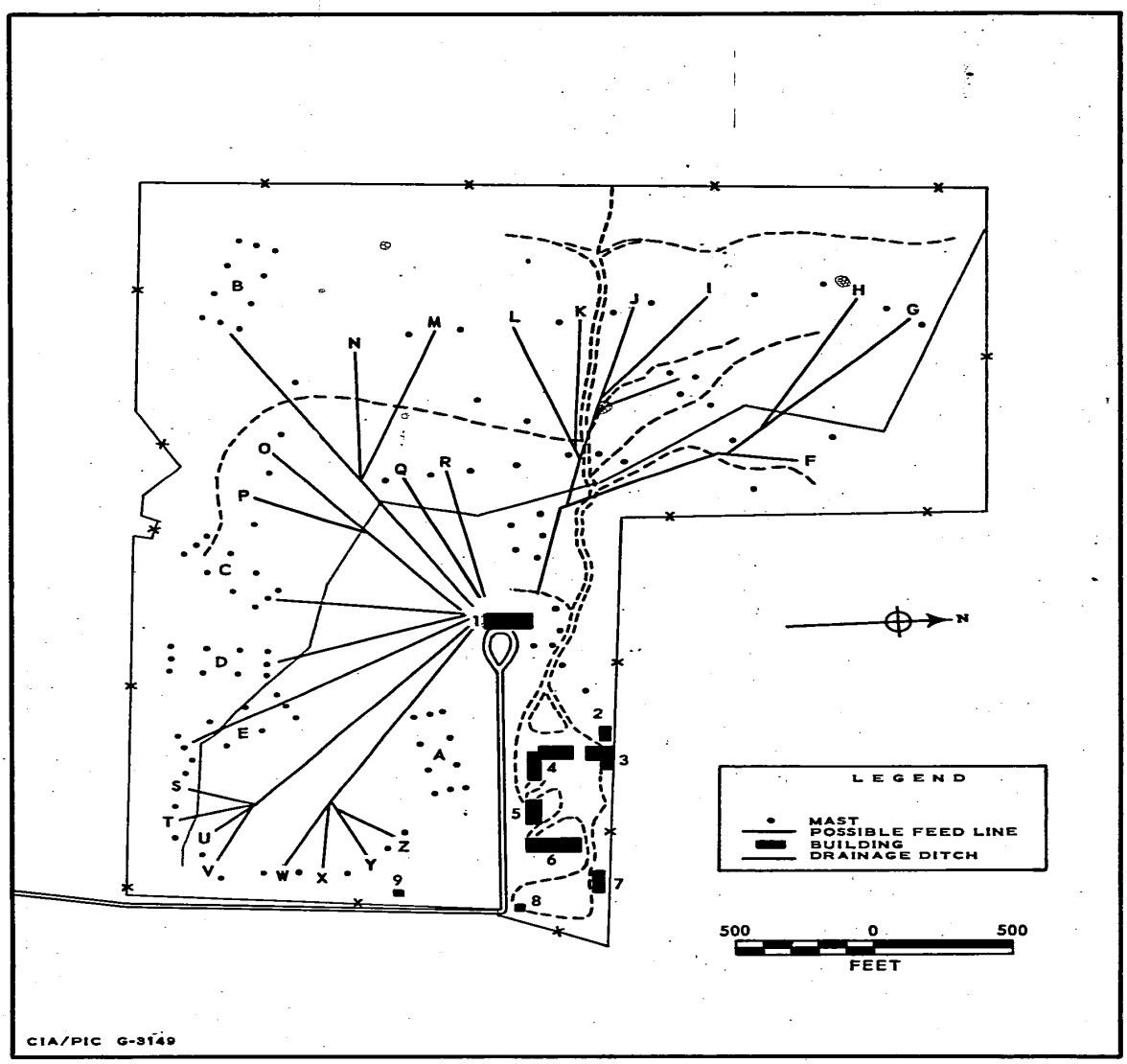

FIGURE 3. SITE B. This site contains five fishbone antennas and approximately 50 additional masts.

Table 4. Structures at Site B

Item	Identification	No of Stories	Roof Type	Dimensions (feet)
1	Control building	2	Hip	155 x 50
2	Support building	1	Hip	40 x 20
3	Support building	1	Hip	80 x 50
4	Support building, L-shaped	1	Hip	120 x 50 90 x 55
5	Support building	2	Hip	105 x 40
6	Barracks	4	Hip	165 x 50
7	Support building	1	Shed	80 x 35
8	Guardhouse	1	Hip	45 x 30
9	Support building	1	Hip	20 x 20

Table 5. Fishbone Antennas at Site B

Antenna	Length	Dimensions (feet) Width	Height	Azimuth Orientation (degrees)
A	320	85	[redacted]	
B	320	85		
C	320	85		
D	320	85		
E	320	85		

25X1D

Table 6. Probable Long Wire Antennas at Site B

Antenna	Distance Between Masts (feet)	Azimuth Orientation (degrees)	Antenna	Distance Between Masts (feet)	Azimuth Orientation (degrees)
F	180	[redacted]	Q	[redacted]	
G	140		R		
H	180		S		
I	165		T		
J	250		U		
K	210		V		
L	210		W		
M	140		X		
N	360		Y		
O	210		Z		
P	210				

25X1D

25X1D

of approximately 173 acres and, like Site A, is road-served. There are eight support buildings and one control building at the site (see Table 4).

Antennas at Site B consist of five fishbones and approximately 50 additional masts. Details of the fishbone antennas are shown in Table 5. The additional masts range in height from 75 to 100 feet, and in many cases apparently support long wire antennas. Where it was possible to determine feed lines on the photography, the perpendicular to a line drawn between adjacent masts was determined and the azimuth orientation was computed. This data is shown in Table 6.

PHOTO DATA:

25X1D

[redacted]